REMARKS

The last Office Action has been carefully considered.

It is noted that claims 1-7 are rejected under 35 U.S.C. 103 over the German patent document '865 in view of the U.S. patents to Jorn, Blum, Muller, or Japanese patent document '559.

Also, the claims are rejected under 35 U.S.C. 112.

In connection with the Examiner's objection of the specification, it is respectfully submitted that in the Amendment of July 3, 2003 reference numeral 2 has been provided to identify the heating means. As for the term "bubble storage", it is respectfully submitted that this term is known in the art, and also this feature is not defined in any of the claims. Therefore it is believed that no further clarification is required.

In connection with the Examiner's rejection of the claims, applicant has amended claim 1, the broadest claim on file, so as to more clearly define the present invention and to distinguish it from the prior art.

It is respectfully submitted that claim 1 as amended clearly and patentably distinguishes the present invention from the references applied by the Examiner against the original claims.

Turning now to the references and in particular to the patent to Braun which is German reference '865, it can be seen that this reference, in column 2, line 35 discloses an apparatus, in which by the high injection speed of the light metal a suction is produced, which provides injection of the protective gas into the material. This is based on the condition that on the contact surfaces between the liquid metal melt and the inner surfaces of the supply device a static friction is produced. The speed of the melt depending on the static friction on the contact surfaces is smaller than in the interior of the melt. The protective gas is aspirated by the produced negative pressure in the inner space. As a result, the manufactured metal casts are not usable. Without the intervention of the operator in the periodic course of the individual casting processes the manufacturing process is not possible.

When the method is performed in accordance with the present invention, the periodic course of the casting processes is possible since during the uninterrupted course of casting processes, material is supplied continuously. For each casting to be cast, depending on the losses in the casting retort 1 (material withdrawn from the casting retort 1) a multiple of the

required metal quantity for each casting is supplied. This is described in the specification.

While the Examiner indicated that this is possible in the patent to Braun, the patent to Braun does not disclose with a single word these new features of the present invention. It is therefore believed that the above mentioned new features of the present invention are not disclosed in the patent to Braun and can not be derived from it as a matter of obviousness.

German patent document DE 221 2652, in contrast to the inventive method, discloses a melting-and dosing device. In accordance with the present invention a method is proposed for producing light metal castings. The negative pressure required for this is not generated by the dosing device of the reference. However, a protective gas atmosphere is provided. The dosing device serves for producing an accurate dosing for injection molding devices by means of the described chamber 44. The dosing is performed with the use of the force of gravity. After the dosing, the valve 36 is lowered by its own weight after the release by means of the lever device 50, 52. This dosing device is disclosed in Figure 1 of the reference. The reference does not teach the new features of the present invention.

The Japanese patent document JP 063 28559 discloses a method for coating a film surface with a layer having a special composition. The reference discloses a coating process which is performed without a cooperation with the melting container with the tool. The exit of the molten material is performed after the opening of the container unidirectionally in direction of the tool. A casting process in correspondence with the inventive process by producing a high pressure difference between a melting container arranged in the upper part of the device (casting retort 1), and the casting mold 19 arranged in the lower part of the apparatus is not provided here and it is not an objective of the invention disclosed in this reference. This reference also does not teach the new features of the present invention as now defined in the amended claim 1.

The other references do not come closer to the currently claimed subject matter than the above discussed references, and therefore any detailed comments thereon would be superfluous.

In view of the above presented remarks and amendments, it is believed that amended claim 1, the broadest claim on file, should be considered as patentably distinguishing over the art and should be allowed.

As for the dependent claims, these claims depend on claim 1, they share its presumably allowable features, and it is respectfully submitted that they should be allowed as well.

Reconsideration and allowance of the present application is most respectfully requested.

Should the Examiner require or consider it advisable that the specification, claims and/or drawings be further amended or corrected in formal respects in order to place this case in condition for final allowance, then it is respectfully requested that such amendments or corrections be carried out by Examiner's Amendment, and the case be passed to issue. Alternatively, should the Examiner feel that a personal discussion might be helpful in advancing this case to allowance, he is invited to telephone the undersigned (at 631-549-4700).

Respectfully submitted,

Michael J. Striker
Attorney for Applicants
Reg. No. 27233